

**PROPOSED RULE 1157. PM10 EMISSION REDUCTIONS FROM
AGGREGATE AND RELATED OPERATIONS**

(a) Purpose

The purpose of this rule is to reduce PM10 emissions from aggregate and related operations.

(b) Applicability

This rule applies to all permanent and temporary aggregate and related operations, unless otherwise exempt under subdivision (h).

(c) Definitions

- (1) AGGREGATE OPERATIONS are defined as operations that produce sand, gravel, crushed stone, and/or quarried rocks.
- (2) AGGREGATE OR RELATED MATERIAL means material that is produced and/or used by the aggregate and related operations.
- (3) AGGREGATE TRUCKS mean trucks with open tops, used to transport the products of the aggregate and related operations to other processors, retailers, or end users.
- (4) BLASTING OPERATIONS are defined as operations that break or displace rock by means of explosives.
- (5) BUNKER is defined as a three-sided enclosure of which one side may be a windscreen with a maximum porosity of 20%.
- (6) CARRY-BACK is defined as materials that fall off the underside of the conveyor belt and accumulate on the ground.
- (7) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency.
- (8) CHUTE is defined as a vertical tube attached to the end of the conveyor which materials are released through to minimize fugitive dust emissions.
- (9) CONVEYOR means an above-ground, outdoor conveyor system to move materials from any location, process, or equipment to another in a continuous fashion.

- (10) DISTURBED SURFACE AREA means a portion of a surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:
 - (A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;
 - (B) been paved or otherwise completely covered by a permanent structure; or
 - (C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.
- (11) DUST SUPPRESSANTS are water, hygroscopic materials, or chemical stabilizers used as a treatment material to reduce fugitive dust emissions.
- (12) ENCLOSED SCREENING EQUIPMENT means screening equipment where the top portion of the equipment is enclosed, except for the area where materials enter the screening equipment.
- (13) EQUIPMENT BREAKDOWN means an unforeseeable impairment of an air pollution control equipment or related operating equipment which causes a violation of any emission limitation or restriction prescribed by this rule or by State law and which: is not the result of neglect or disregard of any air pollution control law, rule, or regulation; is not a recurrent breakdown of the same equipment; and, does not constitute a nuisance as defined in the State of California Health and Safety Code, Section 41700, with the burden of proving the criteria of this section placed upon the person seeking to come under the provisions of this rule.
- (14) EXISTING FACILITY/OPERATION means a facility or an operation that has begun to operate, or has an application for Permit to Construct that has been deemed complete by the Executive Officer on or before November 5, 2004.
- (15) FRONT-END LOADER means a wheeled or tractor loader, with a bucket or fork hinged to lifting arms that loads or digs entirely at the front end.

- (16) FUGITIVE DUST means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.
- (17) HAUL TRUCK means a diesel heavy-duty truck having a minimum capacity of 50 tons and is used to transport aggregates within the facility.
- (18) HAUL ROAD means an unpaved road that is used by haul trucks to carry materials from the quarry to different locations within the facility.
- (19) HIGH WINDS means instantaneous wind speeds exceed 25 miles per hour.
- (20) INTERNAL ROADS mean private paved and unpaved roads within the facility's property boundary.
- (21) LOADING means an activity to move materials from any location to a truck.
- (22) MATERIAL SPILLAGE means material inadvertently lost or scattered by spilling.
- (23) MIXER TRUCK means truck that mixes cement and other ingredients in a drum to produce concrete.
- (24) NEW FACILITY/OPERATION means a facility or an operation that has not begun to operate, or does not have an application for Permit to Construct that has been deemed complete by the Executive Officer as of November 5, 2004.
- (25) OPEN STORAGE PILE is any accumulation of aggregate or related material which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.
- (26) OTHER DUST CONTROL METHODS including but not limited to baghouses, filter bags, enclosures, and partial enclosures.
- (27) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.

- (28) PERMANENT FACILITY/OPERATION means a facility or an operation that is performed at one physical location for more than two years.
- (29) PM10 means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.
- (30) RELATED OPERATIONS are defined as operations that use sand, gravel, cement, crushed stone, and/or quarried rocks in their products, or crush miscellaneous base, and inert landfills that handle construction/demolition debris.
- (31) RUMBLE GRATE is a system where the vehicle is vibrated while traveling over grates with the purpose of removing dust and other debris.
- (32) SCALPING SCREEN means a screen where debris and oversized materials are rejected. .
- (33) SENSITIVE RECEPTOR is a school (kindergarten through grade 12), licensed daycare center, hospital, or convalescent home.
- (34) SILO means an elevated storage container, with or without a top, that releases material through the bottom.
- (35) STABILIZED SURFACE means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.
- (36) TEMPORARY FACILITY/OPERATION means a facility that operates or an operation that is performed at one physical location for two years or less. Temporary facility/operation includes portable facility/operation.
- (37) TRACK-OUT means any material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that has been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
- (38) TRANSFER POINT is a point in a conveying system where the materials are dropped onto a stockpile, equipment, or another conveyor, or where a conveyor belt enters or exits the processing equipment.

- (39) TRANSFER means an activity to move materials from any location to any location within a facility.
- (40) TRUCK TRIMMING AREA means an area where trucks that are exiting a facility/operation are inspected to determine whether the amount and type of loaded material is correct. Any excess material is removed in this area of the facility/operation.
- (41) TRUCK WASHER means a system that is usually used by concrete batching facility to wash the entire surface and the wheels of the mixer truck.
- (42) TUNNEL FEED is underground belt conveyor system to move the materials from any location to any location within a facility in a continuous fashion.
- (43) TYPICAL ROADWAY MATERIALS means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer and the U.S. EPA.
- (44) UNLOADING means an activity to release the materials from a truck or a front-end loader to any location located inside the facility.
- (45) UNPAVED ROADS mean any roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by Federal, State, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public. Internal unpaved roads are private unpaved roads within the facility's property boundary.
- (46) WATER IRRIGATION SYSTEM means devices that are mounted above an open storage pile to deliver water to a pile.
- (47) WHEEL WASHER means a system that is capable of washing the entire circumference of each wheel of the vehicle.
- (48) WORK SHIFT is an eight-hour operating period based on the 24-hour operating schedule.
- (49) VALIDATED NOTICE OF VIOLATION means a notice of violation issued by a District enforcement officer that has been finally resolved by means of either a settlement with the alleged violator resulting in the payment of a civil penalty in any amount or a court judgment imposing civil or criminal liability on the alleged violator based on the conduct alleged in the notice of violation.

(d) Requirements

Unless otherwise stated, effective July 1, 2005, aggregate and related operations shall comply with the following requirements:

(1) General Performance Standards

(A) The operator of a facility/operation shall not cause or allow:

- (i) the discharge into the atmosphere of, fugitive dust emissions exceeding 20 percent opacity from any activity, equipment, storage pile, or disturbed surface area using the Time Averaged Method or the Intermittent Emissions Method from the SCAMD Opacity Test Methods No. 9B, or
- (ii) the discharge into the atmosphere of, fugitive dust emissions exceeding 50 percent opacity from any activity, equipment, storage pile, or disturbed surface area using the Instantaneous Method from the SCQAMD Opacity Test Methods No. 9B, or
- (iii) any visible fugitive dust plume from exceeding 100 feet in any direction from any activity, equipment, storage pile, or disturbed surface area.

(B) The operator of a facility/operation shall promptly remove any pile of material spillage on any internal paved roads. Alternatively, the operator shall maintain in a stabilized condition the pile of material spillage with dust suppressants and remove it by the end of each day.

(C) The operator of a facility/operation shall maintain in a stabilized condition all other piles of material spillage and carry-back with dust suppressants until removal.

(D) The operator of a facility/operation shall use sufficient dust suppressants or other dust control methods as necessary to meet the performance standards in subparagraph (d)(1)(A).

(2) Loading, Unloading, and Transferring:

- (A) The operator of an existing permanent or temporary facility/operation shall use dust suppressants or other dust control methods at each emission source during loading, unloading, or transferring activities of materials as necessary to meet the performance standards in subparagraph (d)(1)(A).
 - (B) The operator of a new permanent facility/operation shall comply with all requirements set forth in this rule and apply Best Available Control Technology required by the Executive Officer.
- (3) Conveyor:
The operator of a facility/operation using a conveyor shall:
 - (A) apply dust suppressants or other dust control methods at the conveyor including all transfer points where materials are released as necessary to meet the performance standards in subparagraph (d)(1)(A).
 - (B) For dropping materials to open storage piles, release such materials through a chute.
- (4) Crushing Equipment:
The operator of a facility/operation conducting crushing activities of materials shall use baghouses to control PM10 emissions. Alternatively, the operator may apply dust suppressants or other dust control methods at the crusher including all discharge points as necessary to meet the performance standards in subparagraph (d)(1)(A).
- (5) Screening Equipment:
The operator of a facility/operation conducting outdoor screening activities of materials shall use enclosed screening equipment that is equipped with a baghouse. Alternatively, the operator may apply dust suppressants or other dust control methods at the screening equipment including all discharge points during such activities as necessary to meet the performance standards in subparagraph (d)(1)(A).
- (6) Storage Piles:
 - (A) The operator of a facility/operation shall maintain in a stabilized condition the entire surface area of the open storage piles of

materials, except for areas of the piles that are actively disturbed during the loading and/or unloading activities. Alternatively, the operator may:

- (i) store materials in a silo or a bunker;
 - (ii) maintain at least two feet of freeboard from the highest portion of the piles; and,
 - (iii) for the bunker, stabilize the sides of the pile that are not surrounded by concrete walls.
- (B) At the end of each work shift in which loading or unloading activities of materials were performed, the operator of a facility/operation shall re-apply dust suppressants to re-stabilize disturbed areas of the piles.
- (C) The operator of a facility/operation shall not allow any open storage piles of materials to be greater than eight feet height if such piles are located within 300 feet of off-site occupied buildings or houses. Alternatively, the operator of a facility/operation shall operate a water irrigation system to maintain in a stabilized condition the entire surface of the piles.

(7) Internal Roads:

(A) Unpaved Haul Roads :

- (i) The operator of a facility/operation shall apply chemical stabilizers on the internal unpaved haul roads so that the surface is maintained in a stabilized condition.
- (ii) The operator of a facility/operation shall post signs at the two ends of the internal unpaved haul roads, stating that haul trucks shall use these roads unless traveling to the maintenance areas.

(B) Unpaved Non-Haul Roads

The operator of a facility/operation shall apply chemical stabilizers on such unpaved roads so that the surface is maintained in a stabilized condition, or apply one-inch or larger washed gravel maintained to a depth of six inches on the entire unpaved road.

- (C) Paved Roads:
 - (i) The operator of a new facility/operation shall water and sweep internal paved roads with a Rule 1186-certified-sweeper by the end of each work shift.
 - (ii) The operator of an existing facility/operation shall water and sweep internal paved roads with a sweeper by the end of each work shift.

- (8) Track-Out:
 - (A) The operator of a facility/operation must post signs at the exits of the facility stating that all loads on aggregate trucks must be leveled and maintained at least 6 inches of freeboard prior to entering paved public roads or prior to the use of a rumble grate and/or wheel washer.
 - (B) Effective November 1, 2005, the operator of a facility/operation shall install and utilize a rumble grate, a wheel washer, or a truck washer in accordance with the following:
 - (i) The rumble grate, the wheel washer, or the truck washer shall be located no less than 30 feet prior to each exit that is used by aggregate and/or mixer trucks and leading to a paved public road;
 - (ii) The operator must ensure that all aggregate and mixer trucks leaving the facility go through the rumble grate, the wheel washer, or the truck washer;
 - (iii) The operator shall post a sign by the rumble grate, the wheel washer, or the truck washer to restrict the speed limit to 5 miles per hour for using such control equipment;
 - (iv) If the internal road from the rumble grate, the wheel washer, or the truck washer to any paved public road is not paved, the operator shall apply one-inch or larger washed gravel maintained to a depth of six inches to such roads;
 - (v) An operator is not subject to clause (d)(8)(B)(i) if he can demonstrate to the Executive Officer within 90 days of the adoption date of this rule, that there is not adequate

space for 30 feet of roadway and that a rumble grate, a wheel washer, or a truck washer at a shorter distance will be adequate to prevent track out of dust to the public road.

- (C) Effective November 1, 2005, the operator of a new permanent facility/operation with land size in excess of 25 acres or with a designed daily throughput of 750 tons, and the operator of an existing permanent facility/operation with land size in excess of 50 acres or with 60 aggregate and/or mixer trucks exiting the facility on any day shall install and utilize a rumble grate and a wheel washer in accordance to the following:
- (i) The rumble grate and the wheel washer shall be located no less than 30 feet prior to each exit that is used by aggregate and/or mixer trucks and leading to a paved public road. The rumble grate shall be located within 10 feet from the wheel washer.
 - (ii) The operator must ensure that all aggregate and mixer trucks leaving the facility go through the rumble grate first and then, the wheel washer.
 - (iii) The operator shall post a sign by the rumble grate to restrict the speed limit to 5 miles per hour for traveling over the rumble grate and wheel washer.
 - (iv) The operator shall pave the internal roads from the rumble grate and the wheel washer to the facility exits leading to paved public roads.
 - (v) The operator must ensure that all aggregate and mixer trucks stay on the internal paved roads between the wheel washer and the facility exits leading to paved public roads.
 - (vi) An operator is not subject to clause (d)(8)(C)(i) if he can demonstrate to the Executive Officer within 90 days of the adoption date of this rule, that there is not adequate space for 30 feet of roadway and that a rumble grate and a wheel washer at a shorter distance will be adequate to prevent track out of dust to the public road.

- (C) The operator of a facility/operation shall provide the “Fugitive Dust Advisory” information prepared by the District to the aggregate and/or mixer truck company and/or broker at least once each calendar year.
- (e) Recordkeeping:

The operator of a facility/operation shall keep the following records on-site for 3 years, or 5 years for Title V facility, and make such records available to the Executive Officer upon request:

 - (1) Records of watering and sweeping schedule for internal paved roads
 - (2) Records of aggregate and/or mixer trucks exiting the facility
 - (3) Records of “Fugitive Dust Advisory” information distribution
 - (4) Records of new equipment initial start-up and/or existing equipment start-up after a repair to fix an equipment breakdown if seeking exemption pursuant to subparagraphs (h)(1)(B) and/or (h)(1)(C).
- (f) Test Methods:

The following test methods shall be used to determine compliance with this rule:

 - (1) SCAQMD Opacity Test Methods No. 9b
 - (2) The Stabilized Surface Test Method included in the SCAQMD Rule 403 Implementation Handbook.
- (g) Additional Requirements Triggered by Recurrent Violations:
 - (1) The operator of an existing facility located within 500 meters of off-site occupied buildings or houses or a sensitive receptor, who accrues three or more validated notices of violation for causing or allowing fugitive dust emissions exceeding the opacity limits in clauses (d)(1)(A)(i) and/or (d)(1)(A)(ii) as measured by the test methods in paragraph (f)(1), or a visible fugitive dust plume exceeding 100 feet in any direction, issued on separate days for violations from the same emission source at the facility in any continuous twelve month period (“recurrent violations”) starting from August 1, 2005 shall, within 30 days of the third notice of violation being validated, submit an emission reduction plan to the Executive Officer that meets the following requirements:

- (A) The plan must propose additional emission control measures sufficient to remedy the causes of the recurrent violations and prevent future violations;
 - (B) It must provide for implementation of the specified additional control measures at the earliest practicable date;
 - (2) The Executive Officer shall approve the emission reduction plan within 30 days of receipt of a complete plan if he determines that its implementation will likely remedy the causes of the recurrent violations. The Executive Officer may impose additional conditions in the plan if he determines them necessary to remedy the causes of the recurrent violations, however, the Executive Officer may not require, as a condition to approving an emission reduction plan under this paragraph, an operator to implement control measures that are economically or technologically infeasible, that do not directly address the cause of the recurrent violations, or that require the operator to take responsibility for the conduct of a third party over whom the operator has no legal control. A disapproval or conditional approval of a plan by the Executive Officer may be appealed to the Hearing Board.
 - (3) The Executive Officer shall disapprove any plan that does not demonstrate a substantial likelihood of preventing violations in the future. If a plan is disapproved, the responsible party shall submit a revised plan which cures the defects within 30 days of receipt of notice of disapproval.
- (h) Exemptions
- (1) The following activities will be exempt from requirements set forth in subparagraph (d)(1)(A):
 - (A) Equipment maintenance activities scheduled at least 48 hours in advance by the operator of a facility
 - (B) Equipment breakdown, subject to Rule 430
 - (C) The first 8 hours of the new equipment initial start-up and the first 2 hours of the equipment start-up after a repair to fix an equipment breakdown.
 - (D) Blasting operations
 - (2) During high winds, the operator of a facility/operation will be exempt from the requirements in subparagraph (d)(1)(A) if all activities and/or

equipment are ceased, except for dust controls. Ready-mix concrete and hot mix asphalt facilities/operations are not required to cease operations directly related to the production of their product in order to qualify for this exemption.

- (3) Scalping screens will be exempt from the enclosure required in paragraph (d)(5).
- (4) The operator of a facility/operation is exempt from the use of chemical stabilizers for internal unpaved roads if the use of applicable chemical dust suppressants on those specific unpaved roads violates the rules and/or regulations of the local Water Quality Control Board or other government agency. Alternatively, the operator of a facility/operation may use water, proving that:
 - (A) Water is used in sufficient quantity and frequency on those specific internal unpaved roads so that the surface is maintained in a stabilized condition; and
 - (B) The operator notifies the Executive Officer in writing 30 days prior to the use of water and demonstrates that the use of chemical was not allowed on those specific unpaved roads.
- (5) Empty haul trucks traveling to and from maintenance areas are exempt from the requirement to use internal unpaved haul roads if they travel on internal unpaved non-haul roads that comply with the requirement in subparagraph (d)(7)(B).
- (6) The unpaved non-haul roads will be exempt from the requirement in subparagraph (d)(7)(B) if such roads are used less than twice a day, and signs are posted on such roads to restrict speed limit to 15 miles per hour and to restrict traffic to such vehicles only.
- (7) Carry-back that is generated by the tunnel feed will be exempt from the requirement set forth in subparagraph (d)(1)(C).
- (8) Truck trimming areas are exempt from the requirement in subparagraph (d)(1)(C).

(i) Alternative Control Options

In lieu of using dust suppressants, the operator of a facility/operation may submit for approval by the Executive Officer and the U.S. Environmental Protection Agency a plan for achieving equivalent emission reductions through alternative control measures.